

## 8-6 Conic Sections

$$Ax^2 + Bxy + Cy^2 + Dx + Ey + F = 0$$

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If  $A = 0$  or  $C = 0$ , but not both, what type of graph is it?

parabola

$$Ax^2 + Bxy + Cy^2 + Dx + Ey + F = 0$$

If  $A = C$ , what type of graph is it?

Circle

$$Ax^2 + Bxy + Cy^2 + Dx + Ey + F = 0$$

If  $A$  and  $C$  have the same sign, but  $A \neq C$ , what type of graph is it?

Ellipse

$$Ax^2 + Bxy + Cy^2 + Dx + Ey + F = 0$$

If  $A$  and  $C$  have the different signs, what type of graph is it?

Hyperbola

p451

33-37, 13, 14, 20, 21